

	Typ	L #	Hits	S arch T xt	DBs	Tim Stamp
1	BRS	L1	291144	(protect or protected or protection or protecting or guard or guarding or guarded or encrypt or encrypted or encryption or encrypting or encode or encoded or encoding or code or coded or coding or scramble or scrambled or scrambling) near5 (information or data)	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 13:53
2	BRS	L2	34421	(protect or protected or protection or protecting or guard or guarding or guarded or encrypt or encrypted or encryption or encrypting or encode or encoded or encoding or code or coded or coding or scramble or scrambled or scrambling) near5 content	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 13:54

	Type	L #	Hits	Search Text	DBs	Tim Stamp
3	BRS	L3	188559	(protect or protected or protection or protecting or guard or guarding or guarded or encrypt or encrypted or encryption or encrypting or encode or encoded or encoding or code or coded or coding or scramble or scrambled or scrambling) near5 (audio or sound or music or text or book or story or image or video or movie or picture or film)	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 13:56
4	BRS	L4	41412	(segment or portion or part or partial) near5 (1 or 2 or 3)	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 13:59
5	BRS	L5	307237	(select or selected or selection or pick or picked or picking or chose or chosen or choose or choosing) near5 (segment or portion or part or partial)	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 14:01

	Typ	L #	Hits	S arch T xt	DBs	Time Stamp
6	BRS	L6	2234	5 near10 (1 or 2 or 3)	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 14:03
7	BRS	L7	2943	(undo or undone or undoing or decrypt or decrypted or decryption or decrypting or decode or decoded or decoding) near5 4	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 14:04
8	BRS	L8	199	5 same 7	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 14:04
9	BRS	L9	156	6 and 8	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 14:06
10	BRS	L10	79466	(send or sending or sent or transmit or transmitted or transmitting or transmission or communicate or communicated or communicating or communication) near5 (1 or 2 or 3)	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM_TDB; USOCR	2002/04/11 14:07

	Typ	L #	Hits	Search Text	DBs	Time Stamp
11	BRS	L11	91	9 and 10 <i>Scanned Li. H. Kwie. all</i>	USPAT; US-PGPUB ; EPO; JPO; DERWENT; IBM TDB; USOCR	2002/04/11 14:07

L11 results

	Document ID	Issue Date	Inventor	Current OR	Curr nt XRef	Pages
1	WO 200146773 A	20010628	PERRY, B et al.			26
2	JP 62079578 A	19870411	MAEDA, YOJI et al.		382/245; 382/245	3
3	US 6108422 A	20000822	Newby, Charles F. et al.	380/47		12
4	US 5425100 A	19950613	Thomas, William L. et al.	725/20	348/467; 380/241; 725/10; 725/122; 725/132; 725/14; 725/22; 725/9	13
5	US 20020041715 A1	20020411	Kadono, Shinya	382/243		108
6	US 20010016006 A1	20010823	Kadono, Shinya	375/240.16		108

LII resu/15

	Document ID	Issue Dat	Inv ntor	Current OR	Curr nt XR f	Pages
7	US 20010001019 A1	20010510	Kadono, Shinya	382/277	382/276	107

DERWENT-ACC-NO: 2001-408719

DERWENT-WEEK: 200143

4 ~ COPYRIGHT 1999 DERWENT INFORMATION LTD 14 ~

TITLE: Transmitting stream of textual data to recipient via third party intermediary by encrypting at least one selected segment of stream of data and identifying it by identification tag containing encryption attributes of segment

INVENTOR-NAME: PERRY, B; SCHWARTZ, R

PRIORITY-DATA: 2000US-0693540 (October 20, 2000), 1999US-172857P (December 20, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200146773 A2	June 28, 2001	E	026	G06F 000/00
AU 200124384 A	July 3, 2001	N/A	000	G06F 000/00

INT-CL_(IPC): G06F000/00

ABSTRACTED-PUB-NO: WO 200146773A

BASIC-ABSTRACT: NOVELTY - The method involves encrypting at least one selected segment of the stream of data that may be identified by an identification tag, which provides encryption attributes of the encrypted segment.

DETAILED DESCRIPTION - A law firm transmits invoice data to a clearinghouse (14). The initiating party (12) can employ, for example, an encoder (12a) to encrypt selected segments of the invoice data according to the teachings of the invention to secure sensitive and/or privileged information from the clearinghouse. The clearinghouse may process the non-encrypted portions of the invoice data, and subsequently transmit the data to the client or a client bank (16b). The client (16) or the client bank (16b) can employ a decoder (16a) to decrypt the encrypted portions of the data.

An INDEPENDENT CLAIM is included for:

(a) a system for transmitting a stream of textual data to recipient

USE - In a digital data processing for transmitting data to a recipient.

ADVANTAGE - Ensures the security of privileged information when data is transmitted to a recipient via a third party intermediary. Facilitates transmission of data, e.g., through public networks and/or third party intermediates. Encrypts a stream of data such that an intermediary can perform the requisite processing of the data while ensuring that the privileged information remains secure. Improves the security of data maintained within a site, e.g., even if not transmitted across a network or through an intermediary.

DESCRIPTION OF DRAWING(S) - The drawing illustrates a system implementing a data transmission method according to the present invention.

initiating party 12	encoder 12a	clearinghouse 14
client 16	decoder 16a	client bank 16b

PGPUB-DOCUMENT-NUMBER: 20010001019

PGPUB-FILING-TYPE: new-utility

DOCUMENT-IDENTIFIER: US 20010001019 A1

TITLE: Image encoding apparatus, image decoding apparatus, image encoding method, image decoding method, image encoding program recording medium and image decoding program recording medium

PUBLICATION-DATE: May 10, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
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Kadono, Shinya	Kobe-shi		JP	
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US-CL-CURRENT: 382/277,382/276

ABSTRACT: It is an object to encode an image signal or a shape signal more efficiently than the prior art. As a means to accomplish the object, the change pixel detector 2 receives the input signal 1 as an input signal and detects the pixel which changes the two-valued pixel value. Further, the change pixel predictor 4 also reads out the reference image stored in the memory 3, and predicts the change pixel of the particular input signal. The difference value calculator 5 subtracts the output of the change pixel predictor 4 from the output of the change pixel detector 2. The difference value rounder 7 compares the tolerance value e and the prediction error D , and outputs x which requires the minimum bit number for being encoded in the value $D - e.lto req.x.lto req.D + e$. The output of the difference value rounder 7 is encoded by the decoder 8 to become the encoded signal 9. Also, the output of the difference value rounder 7 is added in the difference value adder 11 to the predicted pixel 4 of the predicted pixel predictor 4, whereby the change pixel is calculated, and in the change pixel decoder 10, the respective pixels from the already decoded pixel indicated by the change pixel predictor 4 to the change pixel is decoded to be stored in the memory 3.

----- KWIC -----

BSTX: 193. 1st image signal encoding means for selecting at least one of the partial image signals as target partial image signals and encoding the selected target partial image signal and outputting the result as 1st encoded signal;

BSTX: 406. 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal;

DETX: 711. Since the value of the quantizing step is directly related to the compression rate, namely the transmission rate of encoded signals, generally, in order that the transmission rate or recording rate of the encoded signal into which the image is encoded should be constant, the quantizing step is coarsely controlled if the transmission rate is equal to or larger than the given value, while the quantizing step is finely controlled if the transmission rate is less than the given value. And, since the value of the quantizing step also directly influences the picture quality of the encoded signal, when the image is one in which there exist step-like changes of the pixel

values, as the degradation of the picture quality in the amplitude direction is difficult to be visually detected, it is possible to make the compression rate higher by making the quantizing step larger. In this case, the changing of the quantizing step is usually performed according to the change of the pixel value.

CLTX: 40. An image encoding apparatus which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the two-dimensional image signals, comprising: image signal separation means for separating the image signal into at least 2 image signals, and outputting the separated image signals as two or more partial image signals; 1st image signal encoding means for selecting at least one of the partial image signals as target partial image signals and encoding the selected target partial image signal and outputting the result as 1st encoded signal; prediction probability calculating means for predicting the non-target partial image signals which are the partial image signal other than the target partial image signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding means for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation means, and encoding the non-target partial image signal using the encoding method based on the determined degree of priority.

CLTX: 81. An image encoding method which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the same, comprising: image signal separation step for separating the image signal into at least 2 image signals, and outputting the separated image signals as 2 or more partial image signals; 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal; prediction probability calculating step for predicting the non-target partial image signal which is the partial image signal except the target partial image signal on the basis of the image signal decoded from the 1st encoded signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding step for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation step, and encoding the non-target partial image signal using the encoding method according to the determined degree of priority.

CLTX: 99. A recording medium which records an image encoding program which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the same, the image encoding program comprising: image signal separation step for separating the image signal into at least 2 image signals, and outputting the separated image signals as 2 or more partial image signals; 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal; prediction probability calculating step for predicting the non-target partial image signal which is the partial image signal except the target partial image signal on the basis of the image signal decoded from the 1st encoded signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding step for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation step, and encoding the non-target partial image signal using the encoding method according to the determined degree of priority.

PGPUB-DOCUMENT-NUMBER: 20010016006

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010016006 A1

TITLE: Image encoding apparatus, image decoding apparatus, image encoding method, image decoding method, image encoding program recording medium and image decoding program recording medium

PUBLICATION-DATE: August 23, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
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Kadono, Shinya	Kobe-shi		JP	
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US-CL-CURRENT: 375/240.16

ABSTRACT: It is an object to encode an image signal or a shape signal more efficiently than the prior art. As a means to accomplish the object, the change pixel detector 2 receives the input signal 1 as an input signal and detects the pixel which changes the two-valued pixel value. Further, the change pixel predictor 4 also reads out the reference image stored in the memory 3, and predicts the change pixel of the particular input signal. The difference value calculator 5 subtracts the output of the change pixel predictor 4 from the output of the change pixel detector 2. The difference value rounder 7 compares the tolerance value e and the prediction error D , and outputs x which requires the minimum bit number for being encoded in the value $D - e$. $\lceil \log_2(x) \rceil$. The output of the difference value rounder 7 is encoded by the decoder 8 to become the encoded signal 9. Also, the output of the difference value rounder 7 is added in the difference value adder 11 to the predicted pixel 4 of the predicted pixel predictor 4, whereby the change pixel is calculated, and in the change pixel decoder 10, the respective pixels from the already decoded pixel indicated by the change pixel predictor 4 to the change pixel is decoded to be stored in the memory 3.

----- KWIC -----

BSTX: [0191] 1st image signal encoding means for selecting at least one of the partial image signals as target partial image signals and encoding the selected target partial image signal and outputting the result as 1st encoded signal;

BSTX: [0404] 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal;

DETX: [0709] Since the value of the quantizing step is directly related to the compression rate, namely the transmission rate of encoded signals, generally, in order that the transmission rate or recording rate of the encoded signal into which the image is encoded should be constant, the quantizing step is coarsely controlled if the transmission rate is equal to or larger than the given value, while the quantizing step is finely controlled if the transmission rate is less than the given value. And, since the value of the quantizing step also directly influences the picture quality of the encoded signal, when the image is one in which there exist step-like changes of the pixel

values, as the degradation of the picture quality in the amplitude direction is difficult to be visually detected, it is possible to make the compression rate higher by making the quantizing step larger. In this case, the changing of the quantizing step is usually performed according to the change of the pixel value.

CLTX: 40. An image encoding apparatus which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the two-dimensional image signals, comprising: image signal separation means for separating the image signal into at least 2 image signals, and outputting the separated image signals as two or more partial image signals; 1st image signal encoding means for selecting at least one of the partial image signals as target partial image signals and encoding the selected target partial image signal and outputting the result as 1st encoded signal; prediction probability calculating means for predicting the non-target partial image signals which are the partial image signal other than the target partial image signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding means for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation means, and encoding the non-target partial image signal using the encoding method based on the determined degree of priority.

CLTX: 81. An image encoding method which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the same, comprising: image signal separation step for separating the image signal into at least 2 image signals, and outputting the separated image signals as 2 or more partial image signals; 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal; prediction probability calculating step for predicting the non-target partial image signal which is the partial image signal except the target partial image signal on the basis of the image signal decoded from the 1st encoded signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding step for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation step, and encoding the non-target partial image signal using the encoding method according to the determined degree of priority.

CLTX: 99. A recording medium which records an image encoding program which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the same, the image encoding program comprising: image signal separation step for separating the image signal into at least 2 image signals, and outputting the separated image signals as 2 or more partial image signals; 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal; prediction probability calculating step for predicting the non-target partial image signal which is the partial image signal except the target partial image signal on the basis of the image signal decoded from the 1st encoded signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding step for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation step, and encoding the non-target partial image signal using the encoding method according to the determined degree of priority.

PGPUB-DOCUMENT-NUMBER: 20020041715
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020041715 A1
TITLE: DECODING APPARATUS FOR SHAPE AND PIXEL VALUE SIGNAL
PUBLICATION-DATE: April 11, 2002
INVENTOR-INFORMATION:
NAME CITY STATE COUNTRY RULE-47
Kadono, Shinya Kobe-shi JP
US-CL-CURRENT: 382/243

ABSTRACT: It is an object to encode an image signal or a shape signal more efficiently than the prior art. As a means to accomplish the object, the change pixel detector 2 receives the input signal 1 as an input signal and detects the pixel which changes the two-valued pixel value. Further, the change pixel predictor 4 also reads out the reference image stored in the memory 3, and predicts the change pixel of the particular input signal. The difference value calculator 5 subtracts the output of the change pixel predictor 4 from the output of the change pixel detector 2. The difference value rounder 7 compares the tolerance value e and the prediction error D , and outputs x which requires the minimum bit number for being encoded in the value $D - e$. The output of the difference value rounder 7 is encoded by the decoder 8 to become the encoded signal 9. Also, the output of the difference value rounder 7 is added in the difference value adder 11 to the predicted pixel 4 of the predicted pixel predictor 4, whereby the change pixel is calculated, and in the change pixel decoder 10, the respective pixels from the already decoded pixel indicated by the change pixel predictor 4 to the change pixel is decoded to be stored in the memory 3.

----- KWIC -----

BSTX: [0193] 1st image signal encoding means for selecting at least one of the partial image signals as target partial image signals and encoding the selected target partial image signal and outputting the result as 1st encoded signal;

BSTX: [0406] 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal;

DETX: [0734] Since the value of the quantizing step is directly related to the compression rate, namely the transmission rate of encoded signals, generally, in order that the transmission rate or recording rate of the encoded signal into which the image is encoded should be constant, the quantizing step is coarsely controlled if the transmission rate is equal to or larger than the given value, while the quantizing step is finely controlled if the transmission rate is less than the given value. And, since the value of the quantizing step also directly influences the picture quality of the encoded signal, when the image is one in which there exist step-like changes of the pixel values, as the degradation of the picture quality in the amplitude direction is difficult to be visually

detected, it is possible to make the compression rate higher by making the quantizing step larger. In this case, the changing of the quantizing step is usually performed according to the change of the pixel value.

CLTX: 40. An image encoding apparatus which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the two-dimensional image signals, comprising: image signal separation means for separating the image signal into at least 2 image signals, and outputting the separated image signals as two or more partial image signals; 1st image signal encoding means for selecting at least one of the partial image signals as target partial image signals and encoding the selected target partial image signal and outputting the result as 1st encoded signal; prediction probability calculating means for predicting the non-target partial image signals which are the partial image signal other than the target partial image signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding means for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation means, and encoding the non-target partial image signal using the encoding method based on the determined degree of priority.

CLTX: 81. An image encoding method which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the same, comprising: image signal separation step for separating the image signal into at least 2 image signals, and outputting the separated image signals as 2 or more partial image signals; 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal; prediction probability calculating step for predicting the non-target partial image signal which is the partial image signal except the target partial image signal on the basis of the image signal decoded from the 1st encoded signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding step for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation step, and encoding the non-target partial image signal using the encoding method according to the determined degree of priority.

CLTX: 99. A recording medium which records an image encoding program which receives two-dimensional image signals consisting of a plurality of pixels as input signals and encodes the same, the image encoding program comprising: image signal separation step for separating the image signal into at least 2 image signals, and outputting the separated image signals as 2 or more partial image signals; 1st image signal encoding step for selecting at least one of the partial image signals as a target partial image signal and encoding the selected target partial image signal to output a 1st encoded signal; prediction probability calculating step for predicting the non-target partial image signal which is the partial image signal except the target partial image signal on the basis of the image signal decoded from the 1st encoded signal, and calculating the probability that the prediction comes true, and outputting the calculated prediction probability; and 2nd image signal encoding step for determining the degree of priority of decoding based on the prediction probability calculated by the prediction probability calculation step, and encoding the non-target partial image signal using the encoding method according to the determined degree of priority.